

DEVICE FOR OPENING AND CLOSING INJECTION NOZZLES  
IN AN INJECTION MOULDING TOOL

ABSTRACT

A device for opening and closing injection nozzles in an injection moulding tool. The injection nozzle comprises a nozzle member, the nozzle opening of which can be opened and closed with a needle. The needle is stationarily arranged on a piston plate that is supported in a receptacle such that it can be moved in both axial directions similar to a double-action cylinder. A first work chamber is formed on the side of the piston plate which faces away from the needle and a second work chamber that can be acted upon with a fluid in order to actuate the needle is formed on the opposite side of the piston plate. The needle extends outward from the second work chamber through a recess in an end element that lies opposite of the piston plate. In this case, the second work chamber is sealed in an essentially fluid-tight fashion by means of a first sealing element that is arranged between the inner wall of the receptacle and the piston plate and a second sealing element that is arranged between the wall of the recess and the needle and comes in direct contact with the needle.